REDACTED VERSION

Oil Sample Analysis Report

U. S. EPA Region VI
Case Number E16620

Marine Safety Laboratory
Case Number 16-148

9828366

U.S. Department of
Homeland Security

**United States
Coast Guard**

Manager
U.S. Coast Guard
Marine Safety Laboratory

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16450
06 Sep 2016

U. S. Environmental Protection Agency
Attn: On-Scene Coordinator
1445 Ross Avenue, Fountain Place 12th Floor, Suite 1200
Mail Code: 6SF-PR
Dallas, TX 752022733

Dear On-Scene Coordinator:

The laboratory analysis of this case has been completed and our report is forwarded. The technical data supporting the report (spectrograms and chromatograms) have been archived at our facility and are available upon request. We will maintain the oil samples in refrigerated storage pending final case disposition.

Questions concerning this report or the analytical methods used should be directed to the Supervisor of Analysis.

K. JUAIRE

Encl: (1) MSL Report 16-148

United States Coast Guard
Marine Safety Laboratory
Oil Sample Analysis Report
16-148

Requestor: U. S. EPA Region VI
Unit Case/Activity Number: E16620
Received: 30-Aug-16 **Via:** Federal Express 7771 0645 7538

Number Of Samples: 20

Lab ID for Spills: 1, 2, 3, 4, 5, 6, 7, and 8

Lab ID for Sources: 9 through 20

Lab ID for Background: n/a

Analysis Methods:

- [x] GAS CHROMATOGRAPHY (GC)
- [x] GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS)
- [ ] INFRARED SPECTROSCOPY (IR)

Laboratory's Conclusion (as explained below): OTHER

SPECIAL INSTRUCTIONS: Compare spill samples to source samples. Further, compare source samples from this case to the source samples from MSL Case 16-144. Samples 16-144-1, 2, 3, 4, 5, and 6 were reanalyzed for comparison purposes.

RESULTS:

1. Samples 16-148-9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 were specified to be representative of various source samples. Analysis indicates:
   A. Samples 16-148-9, 10, 11, and 12 are similar to each other and contain lubricating oil. Non-petroleum contamination is present. There were no real differences observed between these samples.
   B. Samples 16-148-13, 14, 15, and 16 are similar to each other and contain lubricating oil. Non-petroleum contamination is present. There were no real differences observed between these samples. Samples 16-148-13, 14, 15, and 16 are different from samples 16-148-9, 10, 11, and 12, and the differences are not attributable to non-petroleum contamination.
   C. Samples 16-148-17, 18, 19, and 20 are similar to each other and contain lubricating oil. Non-petroleum contamination is present. There were no real differences observed between these samples. Samples 16-148-17, 18, 19, and 20 are different from samples 16-148-9, 10, 11, 12, 13, 14, 15, and 16, and the differences are not attributable to non-petroleum contamination.

2. Spill samples 16-148-1, 2, 3, 4, 5, 6, 7, and 8 contain lubricating oil. However, these samples are not useful for conclusive comparison purposes due to the non-petroleum contamination present in each sample. (NOTE: The non-petroleum contamination is interfering with biomarker ions of interest.)

3. Suspected source samples 16-144-1, 2, 3, 4, 5, and 6 are different from samples 16-148-9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20. The differences are not attributable to non-petroleum contamination.

SUPERVISOR OF ANALYSIS K. JUAIRE **DATE** 06-Sep-16

United States Coast Guard
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CONCLUSIONS:

1. Samples 16-148-9, 10, 11, and 12 represent different portions of the same petroleum oil.

2. Samples 16-148-13, 14, 15, and 16 represent different portions of the same petroleum oil.

3. Samples 16-148-17, 18, 19, and 20 represent different portions of the same petroleum oil.

4. Spill samples 16-148-1, 2, 3, 4, 5, 6, 7, and 8 are not useful for conclusive comparison purposes due to non-petroleum contamination interfering with biomarker profiles.

5. Source samples 16-144-1, 2, 3, 4, 5, and 6 and source samples 16-148-9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 are not derived from a common source of petroleum oil.

SUPERVISOR OF ANALYSIS K. JUAIRE Kristy Juaire **DATE** 06-Sep-16

United States Coast Guard
Marine Safety Laboratory

Oil Spill Identification Analysis
Cost Recovery Documentation

Laboratory Case Number:	16-148
Requestor:	U. S. EPA Region VI
Unit Case Number:	E16620
Number of Samples:	21
Cost Per Sample Prepared:	$20.00
Total Costs of Sample Preparation:	$420.00
Number of Analyses:	56
Cost Per Sample Analyzed:	$86.00
Total Costs for Analysis:	$4,816.00
TOTAL COSTS:	$5,236.00

This documentation is provided for purposes of Phase IV - Documentation and Cost Recovery under the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300)

Signature: _____ **Date:** 06 Sep 2016

United States Coast Guard
Marine Safety Laboratory Sample
Check-In Log

MSL Case/Activity Number: 16-148

Requestor: U. S. EPA Region VI **Unit Case Number:** E16620

Federal Project Number: E16620 **Delivery Method:** Federal Express

Received Date: 30 Aug 16 **Delivery Number:** 7771 0645 7538

Priority: Yes **Rush:** No **Comparison:** Yes

Lab ID 16-148	Sample Descriptions from Sample Jars	Spill	Source
1	(b) (6)-11-08262016 PROPERTY (b) (6) - EMULSIFIED LIQUID 8/28/2016 @ 1205 HRS.	☑	☐
2	(b) (6)-11-08262016 PROPERTY PROPERTY (b) (6) PITOL - EMULSIFIED LIQUID 8/26/2016 @ 1205 HRS.	☑	☐
3	(b) (6)-11-08262016 PROPERTY (b) (6) - EMULSIFIED LIQUID 8/26/2016 @ 1205 HRS.	☑	☐
4	(b) (6)-11-08262016 PROPERTY (b) (6) - EMULSIFIED LIQUID 8/28/2016 @ 1205 HRS.	☑	☐
5	(b) (6)-12-08262016 PROPERTY (b) (6) - EMULSIFIED LIQUID 8/28/2016 @ 1210 HRS.	☑	☐
6	(b) (6)-12-08262016 PROPERTY (b) (6) - EMULSIFIED LIQUID 8/28/2016 @ 1210 HRS.	☑	☐
7	(b) (6)-12-08262016 PROPERTY (b) (6) - EMULSIFIED LIQUID 8/28/2016 @ 1210 HRS.	☑	☐
8	(b) (6)-12-08262016 PROPERTY (b) (6) - EMULSIFIED LIQUID 8/28/2016 @ 1210 HRS.	☑	☐
9	914F-04-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-30 8/28/2016 @ 1410	☐	☑
10	914F-04-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-30 8/28/2016 @ 1410	☐	☑

Remarks: Samples 1 through 8 "Spill" designation inferred from CoC. Compare to 16-144.

Samples checked in by: YN2 JAMIE YINGLING Jamie Yingling **Date:** 30 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 31AUG16

Supervisor of Analysis: K. JUAIRE Kristy Juaire **Date:** 06Sep16

United States Coast Guard
Marine Safety Laboratory
Check-In Log

MSL Case Number: 16-148

Lab Number 16-148	Sample Descriptions from Sample Jars	Spill	Source
11	914F-04-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-30 8/28/2016 @ 1410	☐	☑
12	914F-04-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-30 8/28/2016 @ 1410	☐	☑
13	914F-05-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-20 8/28/2016 @ 1415	☐	☑
14	914F-05-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-20 8/28/2016 @ 1415	☐	☑
15	914F-05-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-20 8/28/2016 @ 1415	☐	☑
16	914F-05-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., CASTROL 5W-20 8/28/2016 @ 1415	☐	☑
17	914F-06-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., MOBIL SAE 5W-30 8/28/2016 @ 1420	☐	☑
18	914F-06-08282016 LARD OIL FACILITY, 914 FLORIDA- MOBIL SAE 5W-30 8/28/2016 @ 1420	☐	☑
19	914F-06-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., MOBIL SAE 5W-30 8/28/2016 @ 1420	☐	☑
20	914F-06-08282016 PROPERTY LARD OIL FACILITY, 914 FLORIDA ST., MOBIL SAE 5W-30 8/28/2016 @ 1420	☐	☑

Samples checked in by: YN2 JAMIE YINGLING Jamie Yingling **Date:** 30 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 31AUG16

Supervisor of Analysis: K. JUAIRE Kristy Juaire **Date:** 06 Sep 16

United States Coast Guard
Marine Safety Laboratory Sample
Check-In Log

MSL Case/Activity Number: 16-144

Requestor: U. S. EPA Region VI **Unit Case Number:** E16620

Federal Project Number: E16620 **Delivery Method:** Federal Express

Received Date: 23 Aug 16 **Delivery Number:** 7770 5285 1283

Priority: Yes **Rush:** No **Comparison:** No

Lab ID 16-144	Sample Descriptions from Sample Jars	Spill	Source
1	914F-01-08192016 LARD OIL PROPERTY - WHITE EMULSION 8/19/16 1450	☐	☑
2	914F-01-08192016 LARD OIL PROPERTY - WHITE EMULSION 8/19/16 1450	☐	☑
3	914F-01-08192016 LARD OIL PROPERTY - WHITE EMULSION 8/19/16 1450	☐	☑
4	914F-02-08192016 LARD OIL PROPERTY - OFF-WHITE EMULSION 8/19/16 1500	☐	☑
5	914F-02-08192016 LARD OIL PROPERTY - OFF-WHITE EMULSION 8/19/16 1500	☐	☑
6	914F-02-08192016 LARD OIL PROPERTY - OFF-WHITE EMULSION 8/19/16 1500	☐	☑
7	914F-03-08192016 LARD OIL PROPRTY- DARK COLORED PUDDLED WATER 8/19/16 1515	☐	☑
8	914F-03-08192016 LARD OIL PROPRTY- DARK COLORED PUDDLED WATER 8/19/16 1515	☐	☑
9	914F-03-08192016 LARD OIL PROPRTY- DARK COLORED PUDDLED WATER 8/19/16 1515	☐	☑
10	(b) (6)-01-08192016 PROPERTY (b) (6)- WHITE EMULSION 8/19/16 1109	☑	☐

Remarks: Sample 27 is ID only.

Samples checked in by: MST3 MOLLY OEFFNER **Date:** 23 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 29 AUG 16

Supervisor of Analysis: K. JUAIRE **Date:** 01 Sep 16

United States Coast Guard
Marine Safety Laboratory
Check-In Log

MSL Case Number: 16-144

Lab Number 16-144	Sample Descriptions from Sample Jars	Spill	Source
11	(b) (6)-01-08192016 PROPERTY(b) (6)- WHITE EMULSION 8/19/16 1109	☑	☐
12	(b) (6)-01-08192016 PROPERTY (b) (6)- WHITE EMULSION 8/19/16 1109	☑	☐
13	(b) (6)-02-08192016 PROPERTY(b) (6) - DARK EMULSION 8/19/16 1130	☑	☐
14	(b) (6)-02-08192016 PROPERTY (b) (6)- DARK EMULSION 8/19/16 1130	☑	☐
15	(b) (6)-03-08192016 PROPERTY (b) (6) OIL-LIKE MATERIAL ON SEDIMENT 08/19/16 1156	☑	☐
16	(b) (6)-03-08192016 PROPERTY (b) (6) OIL-LIKE MATERIAL ON SEDIMENT 08/19/16 1156	☑	☐
17	(b) (6)03-08192016 PROPERTY (b) (6) OIL-LIKE MATERIAL ON SEDIMENT 08/19/16 1156	☑	☐
18	(b) (6)-04-08192016 PROPERTY(b) (6)- OILED VEGITATION 08/19/16 1159	☑	☐
19	(b) (6)-04-08192016 PROPERTY (b) (6)- OILED VEGITATION 08/19/16 1159	☑	☐
20	(b) (6)-04-08192016 PROPERTY(b) (6)- OILED VEGITATION 08/19/16 1159	☑	☐

Samples checked in by: MST3 MOLLY OEFFNER **Date:** 23 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 29 Aug 16

Supervisor of Analysis: K. JUAIRE **Date:** 01 Sep 16

United States Coast Guard
Marine Safety Laboratory
Check-In Log

MSL Case Number: 16-144

Lab Number 16-144	Sample Descriptions from Sample Jars	Spill	Source
21	206L-05-08192016 PROPERTY 206L- OILED VEGITATION 8/19/16 1207	☑	☐
22	206L-05-08192016 PROPERTY 206L- OIL VEGITATION 8/19/16 1207	☑	☐
23	206L-05-08192016 PROPERTY 206L- OILED VEGITATION 8/19/16 1207	☑	☐
24	108H-06-08192016 PROPERTY 108H- OILED VEGITATION 8/19/16 1250	☑	☐
25	108H-06-08192016 PROPERTY 108H- OILED VEGITATION 8/19/16 1250	☑	☐
26	108H-06-08192016 PROPERTY 108H- OILED VEGITATION 8/19/16 1250	☑	☐
27	[redacted]-07-08222016 PROPERTY [redacted]- BATHTUB + FLOOR MATERIAL 8/22/16 1155	☑	☐
28		☐	☐
29		☐	☐
30		☐	☐

Samples checked in by: MST3 MOLLY OEFFNER **Date:** 23 Aug 16

Sample Custodian: MST2 CHELSEA WARREN **Date:** 29AUG16

Supervisor of Analysis: K. JUAIRE **Date:** 01 Sep 16